WHAT IS CLAIMED IS:

1. A method for transmitting packets between a plurality of end user systems and one server, comprising:

in response to receiving an initial packet from an initiating end user system, communicating with the server to establish a network session and obtain a network session identifier;

adding an entry to a data structure associating a connection with the end user system and the network session identifier;

in response to receiving a data packet from one transmitting end user system, processing the data structure to determine the network session identifier associated with the connection to the transmitting end user system; and

communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

2. The method of claim 1, further comprising:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

3. The method of claim 1, further comprising:

in response to receiving a data packet from the server, determining one network session identifier included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network session identifier; and

transmitting the data packet on the determined connection to one end user system.

4. The method of claim 3, wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

5. The method of claim 4, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (PPP) packet and the connection with the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

6. The method of claim 1, wherein one network session identifier is obtained from the server for each connection to one end user computer.

7. The method of claim 1, wherein the server comprises an Internet Service Provider (ISP) server and wherein the end user computer communicates with the ISP server to access a network through the ISP server.

8. A method for transmitting packets between a plurality of end user systems and one server, comprising:

in response to receiving an initial packet from an initiating end user system, assigning a network address to the end user system;

adding an entry to a data structure associating a connection with the end user system and the network address assigned to the end user system;

determining one network session identifier of a network session on which data packets from multiple end user systems are transmitted to the server; and

communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

9. The method of claim 8, further comprising:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

10. The method of claim 1, further comprising:

in response to receiving a data packet from the server, determining the network address included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network address;

transmitting the data packet on the determined connection to one end user system.

11. The method of claim 10, wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

12. The method of claim 11, wherein the network address comprises an Internet Protocol (IP) address, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (Packet) and wherein the connection between the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

13. The method of claim 1, wherein the operations of assigning the network address, adding the entry to the data structure, determining one network session identifier

and communicating the data packet are performed in a system separate from the server and terminating on one end of the connections to the end user systems.

14. A system for transmitting packets between a plurality of end user systems and one server on a network, comprising:

a processing unit;

a plurality of connections capable of being used to connect with end user systems, wherein the plurality of connections are in data communication with the processing unit;

an adaptor capable of communicating with the server over the network, wherein the adaptor is in data communication with the processing unit;

program code that when executed by the processing unit causes the processing unit to perform:

(i) in response to receiving an initial packet from an initiating end user system, communicating with the server to establish a network session and obtain a network session identifier;

(ii) adding an entry to a data structure associating a connection with the end user system and the network session identifier;

(iii) in response to receiving a data packet from one transmitting end user system, processing the data structure to determine the network session identifier associated with the connection to the transmitting end user system; and

(iv) communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

15. The system of claim 14, wherein the program code when executed causes the processing unit to further perform:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

16. The system of claim 14, wherein the program code when executed causes the processing unit to further perform:

in response to receiving a data packet from the server, determining one network session identifier included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network session identifier; and

transmitting the data packet on the determined connection to one end user system.

17. The system of claim 16, wherein the network session identifier is included within a header encapsulating the data packet from the server, wherein the program code when executed causes the processing unit to further perform:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

18. The system of claim 17, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (PPP) packet and the connection with the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

19. The system of claim 14, wherein one network session identifier is obtained from the server for each connection to one end user computer.

20. The system of claim 14, wherein the server comprises an Internet Service Provider (ISP) server and wherein the end user computer communicates with the ISP server to access a network through the ISP server.

21. A system for transmitting packets between a plurality of end user systems and one server on a network, comprising:

a processing unit;

a plurality of connections capable of being used to connect with end user systems, wherein the plurality of connections are in data communication with the processing unit;

an adaptor capable of communicating with the server over the network, wherein the adaptor is in data communication with the processing unit;

program code that when executed by the processing unit causes the processing unit to perform:

(i) in response to receiving an initial packet from an initiating end user system, assigning a network address to the end user system;

(ii) adding an entry to a data structure associating a connection with the end user system and the network address assigned to the end user system;

(iii) determining one network session identifier of a network session on which data packets from multiple end user systems are transmitted to the server; and

(iv) communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

22. The system of claim 21, wherein the program code when executed causes the processing unit to further perform:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

23. The system of claim 21, wherein the program code when executed causes the processing unit to further perform:

in response to receiving a data packet from the server, determining the network address included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network address;

transmitting the data packet on the determined connection to one end user system.

24. The system of claim 23, wherein the network session identifier is included within a header encapsulating the data packet from the server, wherein the program code when executed causes the processing unit to further perform:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

25. The system of claim 24, wherein the network address comprises an Internet Protocol (IP) address, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (Packet) and wherein the connection between the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

26. An article of manufacture for transmitting packets between a plurality of end user systems and one server, wherein the article of manufacture causes operations to be performed, the operations comprising:

in response to receiving an initial packet from an initiating end user system, communicating with the server to establish a network session and obtain a network session identifier;

adding an entry to a data structure associating a connection with the end user system and the network session identifier;

in response to receiving a data packet from one transmitting end user system, processing the data structure to determine the network session identifier associated with the connection to the transmitting end user system; and

communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

27. The article of manufacture of claim 26, wherein the operations further comprise:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

28. The article of manufacture of claim 26, wherein the operations further comprise:

in response to receiving a data packet from the server, determining one network session identifier included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network session identifier; and

transmitting the data packet on the determined connection to one end user system.

29. The article of manufacture of claim 28,, wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

30. The article of manufacture of claim 29, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (PPP) packet and the connection with the end user system comprises a standard telephone line and wherein

the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

31. The article of manufacture of claim 26, wherein one network session identifier is obtained from the server for each connection to one end user computer.

32. The article of manufacture of claim 26, wherein the server comprises an Internet Service Provider (ISP) server and wherein the end user computer communicates with the ISP server to access a network through the ISP server.

33. An article of manufacture for transmitting packets between a plurality of end user systems and one server, wherein the article of manufacture causes operations to be performed, the operations comprising:

in response to receiving an initial packet from an initiating end user system, assigning a network address to the end user system;

adding an entry to a data structure associating a connection with the end user system and the network address assigned to the end user system;

determining one network session identifier of a network session on which data packets from multiple end user systems are transmitted to the server; and

communicating the data packet from the transmitting end user system to the server using the network session corresponding to the network session identifier.

34. The article of manufacture of claim 33, wherein the operations further comprise:

encapsulating the data packet from the transmitting end user system with a header including the determined network session identifier, wherein the encapsulated data packet is transmitted to the server.

35. The article of manufacture of claim 33, wherein the operations further comprise:

in response to receiving a data packet from the server, determining the network address included with the received data packet;

determining from the data structure the connection to one end user system associated with the determined network address;

transmitting the data packet on the determined connection to one end user system.

36. The article of manufacture of claim 35, wherein the network session identifier is included within a header encapsulating the data packet from the server, further comprising:

removing the header and network session identifier from the data packet, wherein the extracted data packet is transmitted on the determined connection.

37. The article of manufacture of claim 36, wherein the network address comprises an Internet Protocol (IP) address, wherein the data packet received from the end user system is encapsulated in a Point-to-Point Protocol (Packet) and wherein the connection between the end user system comprises a standard telephone line and wherein the data packet from the server is encapsulated in a PPP over Ethernet (PPPOE) packet having a header including the network session identifier of the PPPOE network session over which the PPPOE packet was transmitted.

38. The article of manufacture of claim 33, wherein the operations of assigning the network address, adding the entry to the data structure, determining one network session identifier and communicating the data packet are performed in a system separate from the server and terminating on one end of the connections to the end user systems